WHAT IS CLAIMED IS:

1. An elongated medical device for intralumenal manipulation during a process of magnetic resonance imaging, comprising:

an elongated body; and

an extrusion material that includes a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions, the extrusion material being integrated with the elongated body and configured to enhance magnetic resonance visibility during said process of magnetic resonance imaging.

2. The elongated medical device of claim 1, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal salt.

3. The elongated medical device of claim 1, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal chelate.

4. The elongated medical device of claim 1, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal complex.

5. The elongated medical device of claim 1, wherein the substance having a plurality of paramagnetic ions comprises a gadolinium material.

6. The elongated medical device of claim 1, wherein the substance having a plurality of paramagnetic ions comprises a Gadolinium diethylenetriaminepentaacetic acid material.

7. The elongated medical device of claim 1, wherein the hydrophilic polymer is a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone and hydrophilic polyurethane, polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

8. The elongated medical device of claim 1, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate the inner lumen surface.

9. The elongated medical device of claim 1, wherein the extrusion material further comprises structural polymer having the hydrophilic polymer compounded therein.

10. The elongated medical device of claim 1, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and

wherein the extrusion material is disposed proximate the outer surface.

11. The elongated medical device of claim 1, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate both the outer surface and the inner lumen surface.

12. The elongated medical device of claim 1, further comprising a device antenna that provides active magnetic resonance imaging enhancement.

13. The elongated medical device of claim 1, further comprising a reinforcement mechanism that is configured to operate as a device antenna and provide active MRI image enhancement.

14. The elongated medical device of claim 1, wherein the extrusion material is a co-extrusion material that comprises:

a first co-extrusion component comprising a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions, the first co-extrusion component being configured to enhance magnetic resonance visibility; and

a second co-extrusion component comprising a structural polymer, the second co-extrusion

component being configured to provide structural support.

15. The elongated medical device of claim 14, wherein the hydrophilic polymer includes a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone, hydrophilic polyurethane, polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

16. The elongated medical device of claim 14, wherein the structural polymer includes a material selected from a group consisting of nylon, PEBAX, polyurethane, polyethylene, PEEK, polyimide, polyester-amide copolymer, and polyether-amide copolymer.

17. The elongated medical device of claim 14, wherein the co-extrusion material is cross-linked so as to provide an enhanced durability.

18. The elongated medical device of claim 14, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal salt.

19. The elongated medical device of claim 14, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal chelate.

20. The elongated medical device of claim 14, wherein the substance having a plurality of paramagnetic ions comprises a paramagnetic metal complex.

21. The elongated medical device of claim 14, wherein the co-extrusion material is integrated with the elongated medical device using a co-extrusion process wherein the first and second co-extrusion components are co-extruded in layers with one co-extrusion component on top of the other.

22. The elongated medical device of claim 14, wherein the co-extrusion material is integrated with the elongated medical device using a co-extrusion process wherein the first and second co-extrusion components are co-extruded in a striped pattern.

23. The elongated medical device of claim 14, wherein the co-extrusion material is integrated with the elongated medical device using a co-extrusion process wherein the first and second co-extrusion components are co-extruded in a spiraled pattern.

24. The elongated medical device of claim 14, wherein the substance having a plurality of paramagnetic ions comprises a gadolinium material.

25. The elongated medical device of claim 14, wherein the substance having a plurality of paramagnetic ions comprises a Gadolinium diethylenetriaminepentaacetic acid material.

26. The elongated medical device of claim 14, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the co-extrusion material is disposed proximate the inner lumen surface.

27. The elongated medical device of claim 14, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the co-extrusion material is disposed proximate the outer surface.

28. The elongated medical device of claim 14, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the co-extrusion material is disposed proximate both the outer surface and the inner lumen surface.

29. A method of constructing a medical device, comprising:

providing a medical device; and

integrating a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions with the medical device.

30. The method of claim 29, wherein the integrating of the hydrophilic polymer with the medical device comprises:

compounding the hydrophilic polymer into a structural polymer that is comprised by the medical device.

31. The method of claim 29, wherein the integrating of the hydrophilic polymer with the medical device comprises:

integrating the hydrophilic polymer with a balloon device.

32. The method of claim 29, wherein the integrating of the hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions comprises:

integrating a hydrophilic polymer that incorporates a paramagnetic metal salt.

33. The method of claim 29, wherein the integrating of the hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions comprises:

integrating a hydrophilic polymer that incorporates a gadolinium material to the medical device.

34. The method of claim 29, wherein the integrating of the hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions comprises:

integrating a hydrophilic polymer that incorporates a Gadolinium diethylenetriaminepentaacetic acid material to the medical device.

35. The method of claim 29, wherein the integrating of the hydrophilic polymer comprises:

extruding the hydrophilic polymer on an inner lumen surface of an elongated tubular medical device.

36. The method of claim 29, wherein the integrating of the hydrophilic polymer comprises:

extruding the hydrophilic polymer on an outer surface of an elongated tubular medical device.

37. The method of claim 29, wherein the integrating of the hydrophilic polymer comprises:

extruding the hydrophilic polymer on an outer surface and an inner lumen surface of an elongated tubular medical device.

38. The method of claim 29, wherein the integrating of the hydrophilic polymer comprises:

co-extruding onto a surface of the medical device a structural polymer in combination with a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions.

39. The method of claim 38, wherein the co-extruding onto a surface of the medical device comprises:

co-extruding onto a surface of the medical device a structural polymer in combination with a hydrophilic polymer that incorporates a paramagnetic metal salt.

40. The method of claim 38, wherein the co-extruding onto a surface of the medical device comprises:

co-extruding onto a surface of the medical device a structural polymer in combination with a hydrophilic polymer that incorporates a gadolinium material.

41. The method of claim 38, wherein the co-extruding onto a surface of the medical device comprises:

co-extruding on an inner lumen surface of an elongated tubular medical device.

42. The method of claim 38, wherein co-extruding onto a surface of the medical device comprises:

co-extruding on an outer surface of an elongated tubular medical device.

43. The method of claim 38, wherein co-extruding onto a surface of the medical device comprises:

co-extruding on an outer surface and an inner lumen surface of an elongated tubular medical device.

44. The method of claim 38, further comprising:

cross-linking a portion of material that has been co-extruded onto the surface of the medical device.

45. The method of claim 38, further comprising:

applying at least one final coating to the medical device so as to leave exposed at least one portion of the hydrophilic polymer and the plurality of paramagnetic ions incorporated therein.

46. The method of claim 45, wherein the applying the at least on final coating to the medical device comprises:

applying a lubricious coating to the medical device.

47. The method of claim 45, wherein the applying the at least on final coating to the medical device comprises:

applying a coating that contains a therapeutic agent to the medical device.

48. A material adapted to be integrated with an intralumenal medical device to enhance magnetic resonance visibility during magnetic resonance imaging, the material comprising:

a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic ions.

49. The material of claim 48, wherein the substance having the plurality of paramagnetic ions comprises a paramagnetic metal salt.

50. The material of claim 48, wherein the substance having the plurality of paramagnetic ions comprises a gadolinium material.

51. The material of claim 48, wherein the substance having the plurality of paramagnetic ions comprises a Gadolinium diethylenetriaminepentaacetic acid material.

52. The material of claim 48, wherein the hydrophilic polymer is a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone, hydrophilic polyurethane, polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

53. The material of claim 48, further comprising:
a structural polymer that is co-extruded with the hydrophilic polymer, the hydrophilic polymer being configured to enhance magnetic resonance visibility and the structural polymer being configured to provide structural support.

54. The material of claim 53, wherein the hydrophilic polymer includes a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone, hydrophilic polyurethane polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride

polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

55. The material of claim 53, wherein the structural polymer includes a material selected from a group consisting of nylon, PEBAX, polyurethane, polyethylene, PEEK, polyimide, polyester-amide copolymer, and polyether-amide copolymer.

56. An elongated medical device for intralumenal manipulation during a process of magnetic resonance imaging, comprising:

an elongated body; and

an extrusion material that includes a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic particles, the extrusion material being integrated with the elongated body and configured to enhance magnetic resonance visibility during said process of magnetic resonance imaging.

57. The elongated medical device of claim 56, wherein the plurality of paramagnetic particles comprise super-magnetic iron oxide.

58. The elongated medical device of claim 56, wherein the plurality of paramagnetic particles comprise dysprosium oxide.

59. The elongated medical device of claim 56, wherein the hydrophilic polymer is a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone, hydrophilic polyurethane, polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

60. The elongated medical device of claim 56, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate the inner lumen surface.

61. The elongated medical device of claim 56, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate the outer surface.

62. The elongated medical device of claim 56, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate both the outer surface and the inner lumen surface.

63. The elongated medical device of claim 56, wherein the extrusion material is a co-extrusion material that comprises:

a first co-extrusion component comprising a hydrophilic polymer that incorporates a substance having a plurality of paramagnetic particles, the first co-extrusion component being configured to enhance magnetic resonance visibility; and

a second co-extrusion component comprising a structural polymer, the second co-extrusion component being configured to provide structural support.

64. An elongated medical device for intralumenal manipulation during a process of magnetic resonance imaging, comprising:

an elongated body; and

an extrusion material that includes a hydrophilic polymer, the extrusion material being integrated with the elongated body and configured to enhance magnetic resonance visibility during said process of magnetic resonance imaging.

65. The elongated medical device of claim 64, wherein the hydrophilic polymer is a material selected from a group consisting of polyethylene oxide, polypropylene oxide, polyvinyl-pyrrolidone and

hydrophilic polyurethane, polycarboxylic acids, cellulosic polymers, gelatin, maleic anhydride polymers, polyamides, a polyvinyl alcohols, polyethylene oxides and polyacrylic acid.

66. The elongated medical device of claim 64, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate the inner lumen surface.

67. The elongated medical device of claim 64, wherein the extrusion material further comprises a structural polymer that is compounded into the hydrophilic polymer.

68. The elongated medical device of claim 64, wherein the elongated body is a tubular elongated body having an outer surface and an inner lumen surface, and wherein the extrusion material is disposed proximate the outer surface.

69. The elongated medical device of claim 64, wherein the extrusion material is a co-extrusion material that comprises:

a first co-extrusion component comprising a hydrophilic polymer, the first co-extrusion component being configured to enhance magnetic resonance visibility; and

a second co-extrusion component comprising a structural polymer, the second co-extrusion component being configured to provide structural support.

70. The elongated medical device of claim 64, further comprising a reinforcement mechanism that is configured to operate as a device antenna and provide active MRI image enhancement.

71. A method of constructing a medical device with enhanced magnetic resonance visibility, comprising:

providing a medical device; and

integrating a material that comprises a hydrophilic polymer with the medical device.

72. The method of claim 71, wherein the integrating the material with the medical device comprises:

compounding the material with a structural polymer that is comprised by the medical device.

73. The method of claim 71, wherein the integrating of the hydrophilic polymer with the medical device comprises:

integrating the hydrophilic polymer with a balloon device.

74. The method of claim 71, wherein the integrating of the material comprises:

extruding the material on an inner lumen surface of an elongated tubular medical device.

75. The method of claim 71, wherein the integrating of the material comprises:

extruding the material on an outer surface of an elongated tubular medical device.

76. The method of claim 71, wherein the integrating of the material comprises:

co-extruding onto a surface of the medical device a structural polymer in combination with a hydrophilic polymer.

77. The method of claim 71, wherein the co-extruding onto a surface of the medical device comprises:

co-extruding on an inner lumen surface of an elongated tubular medical device.

78. The method of claim 71, wherein co-extruding onto a surface of the medical device comprises:

co-extruding on an outer surface of an elongated tubular medical device.

79. A method of utilizing a medical device having enhanced magnetic resonance imaging visibility, comprising:

providing a medical device that incorporates an integrated hydrophilic polymer;

causing the hydrophilic polymer to absorb fluid;

utilizing the medical device within an intralumenal environment within a patient during a process of magnetic resonance imaging.

80. The method of claim 79, wherein causing the hydrophilic polymer to absorb fluid comprises:

pre-soaking at least one portion of the medical device.

81. The method of claim 79, wherein causing the hydrophilic polymer to absorb fluid comprises:

introducing at least one portion of the medical device to a fluid environment within a patient.

82. The method of claim 79, wherein providing a medical device that incorporates an integrated hydrophilic polymer further comprises:

providing a medical device that incorporates an integrated hydrophilic polymer that includes a substance having a plurality of paramagnetic ions.

83. The method of claim 82, wherein causing the hydrophilic polymer to absorb fluid comprises:

pre-soaking at least one portion of the medical device.

84. The method of claim 82, wherein causing the hydrophilic polymer to absorb fluid comprises:

introducing at least one portion of the medical device to a fluid environment within a patient.